CITY OF RALEIGH

DOWNTOWN DEVELOPMENT AND FUTURE PARKING NEEDS STUDY

URBAN ACCESS POLICY GUIDANCE

FINAL

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BACKGROUND

The City of Raleigh has seen substantial growth in the downtown area and this growth is expected to continue. According to the Downtown Raleigh Alliance, the center city is undergoing a $1.1 billion construction boom, including 2,850 residential units, 1.1 million square feet of office space, and more than 600 hotel rooms. These developments will continue to create new parking facilities requiring driveways and service access points throughout Downtown Raleigh. As developments choose to come downtown, the City is tasked with providing a balance between competing interests. A balance must be struck between providing adequate access to support thriving developments, while not impeding on the safety and quality of life associated with downtown areas, particularly the pedestrian realm at street level.

Previously, the City relied on section 6.5.4 of the Raleigh Street Design Manual to determine the number of access points for residential development (Appendix A). This guidance was based solely on number of dwelling units and targeted suburban developments. As downtown continually grows, there will be an increased amount of large mixed use projects with embedded parking, as well as free standing parking decks. To accommodate building access, pedestrian and driver safety, and pedestrian-friendly streetscape, the City needs an access policy unique to urban development.

KEY TASKS

There are many factors to be considered when developing an urban access policy. To begin this process, five peer cities were selected and their relevant policy framework reviewed. Additionally, four property managers of existing Downtown Raleigh mixed-use developments were interviewed to gain a better understanding of the impacts of downtown access in its current state. Finally, a high-level review of the existing built environment in Downtown Raleigh was completed. The following sections further expand on each of the tasks.

PEER CITY REVIEW

Five peer cities across the Southeast were selected for policy review. Selection of these cities revolved around population, downtown block configuration, and downtown right-of-way widths. While street layout varied within each of the downtowns evaluated, the table below summarizes the predominant block and right-of-way patterns found in each location.

Table 1: Peer City Comparison

City	City Population	MSA Population	Downtown Block Size[1]	Downtown Right-of-Way Width[2]
Raleigh	440,000	1,242,974	485 x 485 feet	66 and 99 feet
Charlotte, NC	809,958	2,380,314	430 x 430 feet	55 to 85 feet
Nashville, TN	678,889	1,830,000	250 x 560 feet (250 x 280 feet including alleys)[3]	45 to 60 feet
Austin, TX	931,830	1,716,289	375 x 360 feet (375 x 180 feet including alleys)	80 and 120 feet
Birmingham, AL	212,237	1,140,300	480 x 450 feet (480 x 225 feet including alleys) 480 x 500 feet (480 x 250 feet including alleys)	75, 100, 70, and 75 feet
Richmond, VA	220,289	1,258,251	320 x 400 feet 220 x 390 feet 330 x 390 feet	50 and 65 feet

1 Approximate measurement from center to center of intersections for predominant downtown block pattern(s)

2 Approximate measurement of predominant downtown right-of-way widths

3 Many Nashville blocks are of irregular size

POLICY REVIEW

A review of the five peer cities' existing urban access policies was crucial to developing a set of urban access recommendations for Downtown Raleigh. The policies serve as the foundation for building recommendations unique to Downtown Raleigh. Things of note were whether each city had a downtown form-based code (or something comparable), relevant downtown street access regulations (location, type, widths, quantity), and any parking deck regulations.

Relevant policies and regulations for each city are summarized below.

Charlotte, NC

- Charlotte hired a consultant and is in the process of updating their UDO to include a form-based code; adoption is anticipated January 2019
- FAR credit for devoting at least 75% of parking deck street frontage to retail, office, civic, or institutional uses
- Gate control that eliminates queueing in the right-of-way required
- All access points and entrance/exit lanes are determined by a set of functional specs that ensure appropriate parking deck operation
- Zero-access policy for Brevard Street between I-277 and East Trade Street and Tryon Street Mall

Nashville, TN

- Has a form-based Downtown Code
- Use a street hierarchy to determine access
- Prioritizes alleys for access and loading
- Parking structure openings must be less than or equal to 35 feet
- Any vehicular opening shall have a minimum spacing of 35 feet
- Service elements should not be accessible from primary streets[1]

Austin, TX

- Austin does not have a form-based code, but the City does implement active edge standards[2]
- Parking garage access must be less than or equal to 30 feet wide
- Alleys are the primary means of access for parking facilities
- Access is not permitted on or within 100 feet of a principal street
- Garages must be separated from the street by a pedestrian-oriented use

Birmingham, AL

- Birmingham is in the process of creating character-based codes
- Require that 75% of public street frontage be building façade (existing requirement)
- All access must be from secondary streets[3] (existing requirement)
- Birmingham does not have a current protocol specific to downtown access, but this element is supposed to be included in the new character-based codes

Richmond, VA

- One exit lane and one entrance lane required for each 300 parking spaces
- No access allowed on principal street frontage
- Alleys are the preferred points of access

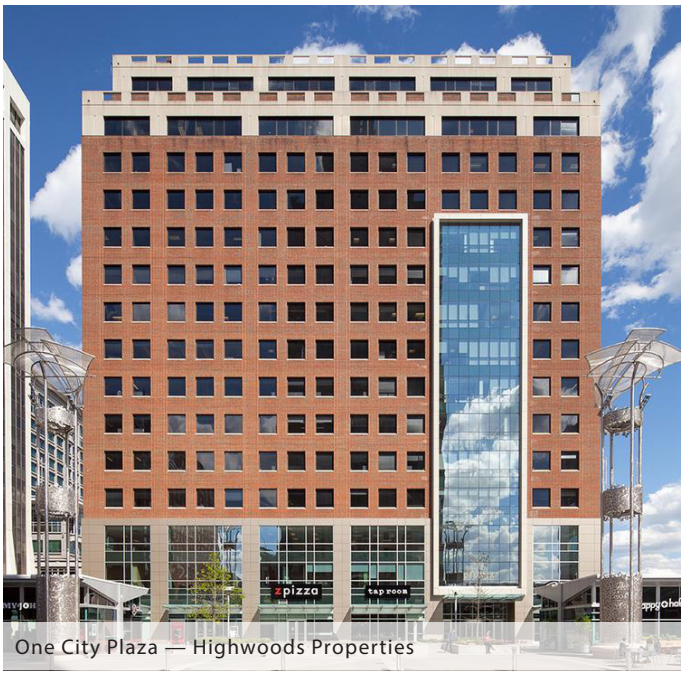
1 "Primary Street" is defined in the Nashville street hierarchy
2 For a garage abutting a street designated as an active edge, the ground floor must accommodate active uses
3 This access requirement is not specific to the downtown area or parking structures

PROPERTY MANAGER INTERVIEWS

Interviews were conducted with the property managers of four mixed-use development towers in Downtown Raleigh. The goal of the interviews was to gauge how well the existing access operations serve the buildings and identify any challenges tenants are facing. The interviews revolved around three primary categories—parking, loading facilities, and waste services. A summary of each interview can be found in Appendix B. The mixed-use developments and respective property managers are shown below

BB&T — Capital Associates

Wells Fargo — Spectrum Properties



One City Plaza — Highwoods Properties

SECU — Self Managed

EXISTING PARKING STRUCTURE ACCESS REVIEW

A key task prior to developing recommendations was to inventory the major existing parking structures in downtown Raleigh and identify any access constraints. The inventory of existing Downtown Raleigh parking decks included the number of static spaces, access points, and entrance/exit lanes in the peak direction. This information was later compared to the developed recommendations. The inventory and comparison to the final recommendations can be found in Appendix C

RECOMMENDATIONS DEVELOPMENT

After reviewing peer city policy, interviewing the property managers of mixed-use developments and inventorying the parking structure built environment, a series of recommendations for parking facility access in Downtown Raleigh were created. The parking facility requirements below are recommended for application in the Downtown District (DX-).

Table 2 below summarizes the recommendations for the number of parking facility accesses per static parking space.

TABLE 2: PARKING FACILITY/ACCESS POINTS MATRIX

Parking Capacity	Access Points		Total Lanes in Peak Direction	
	Minimum	Maximum	Minimum	Maximum
<300	1	2	1	2
300-600	1	2	2	3
600-900	2	2	3	4
900-1200	2	2	4	5
>1200	Special Study Required			

Additionally, it is recommended that the City of Raleigh incentivize developers to use expedient garage access technology, such as Automatic Vehicle Identification (AVI). Developments could receive a bonus of 20% more static spaces without an increase in access points for using an approved technology.

To limit sidewalk impedance and enhance pedestrian safety, recommendations were also made to limit access width and regulate access spacing and location.

Parking facility access should:

- Be no greater than 32' in width (consistent with Raleigh Street Design Manual 6.5.1)
- Have a minimum spacing of 35' between access points for parking facilities, service access, etc.
- Provide access points from multiple streets when possible
- Be prohibited along Fayetteville Street between Morgan Street and South Street
- Be strongly discouraged along Hillsborough Street from Salisbury Street to Gorman Street when access from cross streets is available
- Have YIELD HERE TO PEDESTRIANS (R1-5 or R1-5a) and DO NOT BLOCK SIDEWALK signage in advance of the sidewalk/crosswalk at all parking deck exit lanes
- Have convex mirrors at exit lanes when visibility of pedestrian and vehicular traffic is limited

APPENDICES

APPENDIX A: RALEIGH STREET DESIGN MANUAL EXCERPT

6.5.2. Driveways for Residential Uses

A. When an improved alley with a right-of-way of at least 20 feet in width is provided, all vehicular access shall take place from the alley. Access may be taken from the side street on corner lots.

B. Except for Townhouse lots, all lots 40 feet or less in width platted after the effective date of this UDO, are required to take vehicular access from an alley.

C. No residential lot may have more than two driveways on the same street. Driveways may be no closer than 40 feet from any other driveway (measured from inside edge to inside edge of proposed driveway).

D. Non-alley loaded driveways may intersect a street no closer than 20 feet from the intersection of two street rights-of-way. The minimum corner clearance from the curb line or edge of pavement of intersecting streets shall be at least twenty (20) feet from the point of tangency of the radius curvature, or twenty (20) feet from the intersection of right-of-way lines, whichever is greater. The radius of the driveway shall not encroach on the minimum corner clearance.

E. Driveways must be located a minimum of 3.5 feet from the side lot line. However, a driveway may be located on the lot line closer than 3.5 feet if it is shared with an adjacent lot.

F. Parking and driveway areas shall not constitute more than 40% of the area between the front building line and the front property line.

G. All lots, parcels or any other division of land of four hundred (400) linear feet or less adjacent to a Major Road System should have no more than one driveway access point.

6.5.3. Driveways for Mixed Use and Nonresidential Uses

A. All on-site parking areas can be accessed from an improved alley with a right-of-way of at least 24 feet in width, access from the alley is required and new curb cuts along the public right-of-way are not allowed.

B. Driveways are allowed based on the property frontage of any street. Additional driveways require approval from the Public Works Director.

C. Driveways accessing up to 80-foot wide street rights-of-way must be spaced 200 feet apart centerline to centerline and driveways accessing more than an 80-foot wide street right-of-way must be spaced 300 feet apart centerline to centerline.

D. A driveway serving any non-residential use or multi-unit living shall not be permitted to access neighborhood yield or neighborhood local streets unless the proposed access point is the lesser of 300' from an avenue, boulevard or parkway, or the intersection of another public street.

E. Offers of cross-access shall be prohibited where a proposed nonresidential use or multi-unit living may potentially obtain access from a neighborhood or residential street, unless the resulting access meets the provisions of subsection d above.

F. Driveways may intersect a street no closer than 50 feet from the intersection of 2 street rights-of-way, not including an alley.

G. Nothing in this section shall prevent all site access to any property.

6.5.4. Residential Development Access

Residential access to and from streets shall be constructed in accordance with City standards as outlined below. For multi-unit living developments one access point from a public street is required for every 150 dwelling units. See the chart below.

TABLE 6.5B: ACCESS POINT REQUIREMENTS PER UNIT COUNT

Access Points	*Units*
1 Access point	0 – 150
2 Access points	151 – 300
3 Access points	301 - 450

6.5.5. Driveway Type

The standard residential driveway access for the City shall be the "ramp" type driveway section. Ramp type driveways shall be constructed in accordance with City standards and specifications as outlined in the City Code and, this Manual and the City of Raleigh Standard Details.

6.5.6. Alignment and Grades

Residential driveway access alignment and grades shall comply with the standards and specifications outlined in the City of Raleigh Standard Details.

APPENDIX B: PROPERTY MANAGER INTERVIEW SUMMARIES

WELLS FARGO/ALEXANDER SQUARE

Spectrum Properties

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Parking

- Below ground deck (beneath Wells Fargo)
- Alexander Square (24/7 pay-to-park)
  - AVI Technology
  - $130/month unreserved
  - $160/month reserved

Loading Facilities

- Commercial dock on Salisbury
  - Same access as underground deck
- Loop driveway for passenger loading

Waste Services

- Internal Trash
- Curbside Recycling

SECU

Self Managed

Ed Hoffman | edward.hoffman@ncsecu.org | 919.839.5300

Parking

- 8 level parking deck integrated into building
  - Access off Salisbury Street
  - SECU use only
  - 24/7 Security

Loading Facilities

- Commercial dock on Salisbury Street
  - Shared access with parking deck

Waste Services

- Internal Trash and Recycling
  - Housed within the parking deck/loading dock area

BB&T

Capital Associates

Frank Baird | fbaird@casso.com |919.233.9901

Parking

- Cabarrus Deck
- Surface lot (near Enterprise)
- Sheraton Deck (partial)
  - Daily manual counts necessary because of inadequate technology

Loading Facilities

- Commercial dock on Salisbury Street
  - Schedule many after-hour deliveries
- On-street loading on Salisbury Street
- Loop driveway for passenger loading (shared with hotel)
- Future need for valet services

Waste Services

- Internal Trash

ONE CITY PLAZA

Highwoods Properties

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Parking

- Deck beneath City Plaza (owned by Highwoods)
- City Center Deck (partial)
- Blount Street Deck (partial)
- Raleigh Underground Deck (partial)

Loading Facilities

- Commercial dock on Wilmington Street
  - Very busy, often causes lane blockage on Wilmington Street
- Passenger drop off in City Plaza
  - Unique challenges because Plaza weight restrictions (i.e. no tour buses)

Waste Services

- Internal Trash and Recycling

APPENDIX C: EXISTING PARKING STRUCTURE ACCESS INVENTORY

Existing Parking Decks — Number of Access Points and Lanes						
Deck	Existing Conditions Inventory			Comparison to Recommendations in Table 2		
	Parking Capacity	Access Points	Lanes in Peak Direction	Access Points	Lanes in Peak Direction	Over or Under Table 2 Recommendation
Cabarrus Deck	533	2	2	1-2	1-2	
Municipal Deck	602	4[1]	2	2-2	2-3	OVER
Moore Square Deck	653	2[2]	2[3]	2-2	2-3	
City Center	1,893	3	5	Special Study		
Wilmington Station Deck	723	2	4	2-2	3-4	
Performing Arts Deck	1,041	4	4	2-2	4-5	OVER
Convention Center/Charter Square (underground deck)	1,508	2	3	Special Study		
Blount Street Deck	1,238	2[4]	4	Special Study		
Alexander Square[5]	695	2	2	2-2	3-4	UNDER
Sheraton	481	2	2	1-2	1-2	
Green Square Deck	1,118	2	3	2-2	4-5	UNDER

See next page for spacing of existing parking deck access points.

1 Five access points, but fifth is police/government officials access only
2 Second access point is a single lane, cardholder only entrance
3 Three total lanes inbound, two lanes outbound
4 Three access points, but third is private access on Skyhouse property
5 AVI Technology — 20% bonus would put this deck in compliance with recommendations

APPENDIX C: CONTINUED

Existing Parking Decks — Access Spacing					
Deck	Access Street	Distance to Nearest Driveway or Intersection (in feet)			
		North	South	East	West
Cabarrus Deck	South Salisbury Street	30	80		
	Gale Street	10	30		
Municipal Deck	West Morgan Street			50	230
	McDowell Street	125	100		
	Dawson Street	225	190		
Moore Square Deck	South Wilmington Street	20	70		
	Martin Street (Employee Entrance Only)			95	115
City Center	South Wilmington Street	145	5		
	East Cabarrus Street			170	250
	South Blount Street	15	170		
Wilmington Station Deck	South Wilmington Street	140	175		
	South Blount Street	260	135		
Performing Arts Deck	West Lenoir Street			200	35
				150	200
	West South Street			150	200
				200	65
Convention Center/Charter Square (Underground Deck)	South Wilmington Street	120	235		
		235	125		
	West Lenoir Street			70	170
Blount Street Deck	South Wilmington Street	230	30		
	Blount Street	25	90		
Alexander Square4	South Wilmington Street (Entrance Only)	125	135		
	South Wilmington Street (Exit Only)	135	115		
Sheraton	Gale Street	5	70		
Green Square Deck	West Edenton Street			10	95
	North McDowell Street (Exit and Employee Entrance)	150	250		